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LADAS & PARRY LLP			HOLT, ANDRIAE M	
224 SOUTH MICHIGAN AVENUE				
SUITE 1600			ART UNIT	PAPER NUMBER
CHICAGO, IL 60604			1616	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/581,954	GANI, NARGIS ABDUL	
	Examiner	Art Unit	
	Andriae M. Holt	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 June 2006.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-15 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 9/1/2006, 8/6/2007, 2/25/2008.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____.

DETAILED ACTION

Claims 1-15 are pending in the application. Claims 1-15 will be examined on the merits.

Priority

This application is a 371 of PCT/GB05/00018 filed January 6, 2005, which claims priority to United Kingdom Application 0400744.9 filed January 14, 2004.

Information Disclosure Statement

Information Disclosure Statements filed September 1, 2006, August 16, 2007 and February 25, 2008 are acknowledged.

Specification

The abstract of the disclosure is objected to because of undue length and content. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC §§ 101 and 112

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-15 provides for the use of a composition to deter slugs, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 13-15 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

As a result, claims 13-15 cannot be further examined on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott et al. Publication (1975).

Scott et al. disclose chemical analyses of pygidial gland secretions of Carabidae beetles revealed a diversity of compounds which includes saturated branched fatty acids, formic acid, quinones, cresol, hydroperoxides and hydroquinones (Abstract). Scott et al. disclose that adult *Anthia thoracica* (F.), *Thermophilum homoplatum* (Lequien) and *T. buchelli* (Hope) were collected during November/December near Bronkhorstspruit in the Transvaal, South Africa. Scott et al. disclose the secretions were obtained by “milking” the beetles-application of pressure to the hind-tarsus readily induced these beetles to squirt their secretion into a cooled vial (obtaining naturally occurring secretions from a ground beetle and applying to an application surface, instant invention) (page 805, Materials and Methods). Scott et al. disclose that the repellent efficacy of the secretions of the beetles is indicated by the fact that skin contact with them resulted in severe burns of two of the authors' hands and faces (page 809, Morphology of the pygidial defense glands, paragraph 3).

Scott et al. disclose the beetles used in the investigation come from the largest anthiine genera in southern Africa. Scott et al. further disclose the secretions of

anthiines would appear to be characterized by the presence of formic acid as the major component, and acetic, tiglic, and angelic acids as additional minor components (page 809, Discussion, paragraph 1). Scott et al. disclose the presence of formic acid in all these beetles is interesting since it is a strong common chemical irritant and cytotoxin that is capable of easily penetrating the mucous membranes on sensitive areas of potential vertebrate predators (page 810, paragraph 1). Scott et al. further disclose that although the anthiines produce formic acid, they are unique among the carabids in that they produce a mixture of formic acid plus acetic acid and tiglic acid in the same secretion (page 810, paragraph 2) (formic acid, acetic acid and tiglic acid, instant invention).

Scott et al. meet all the limitations of the claims and the claims are thereby anticipated.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Will et al. Publication (2000).

Will et al. disclose that ground beetles (Carabidae) are well known for their bold chemical signals involving, oozing, spraying and crepitating irritating mixtures of polar and nonpolar compounds (page 460, Introduction). Will et al. disclose that material for chemical analysis were obtained either by removal of gland reservoirs, or as secretion discharged on filter paper. Will et al. further disclose for gland removal, live beetles were placed in a freezer for several minutes and dissected under distilled water. Will et al. disclose whole gland reservoirs were placed in dry-ice cooled reaction vials. Will et al.

disclose to collect discharged secretion on filter paper, beetles were held by one leg with forceps and a small strip of filter paper was held near the beetle to catch the secretion as it was sprayed. Will et al. disclose to prevent premature discharge; beetles were temporarily incapacitated by cooling them and then allowed to warm to room temperature while under observation. Will et al. disclose that once beetles became active, defensive secretions was collected on a piece of filter paper (obtaining naturally occurring secretions and applying to an application surface, instant application) (page 461, Collection of secretion for chemical analysis).

Will et al. disclose in Table 1 on page 463, the different tribes of beetles and the secretions produced. Will et al. disclose the acids include formic, acetic, methacrylic and tiglic acids (methacrylic, formic, acetic and tiglic acids, instant invention). Will et al. disclose the primarily methacrylic and tiglic acid producing tribes Pterostichini and Zabronini are very diverse in the temperate region (methacrylic and tiglic acid, instant invention) (page 477, paragraph 2). Will et al. disclose that Blum speculated that the occurrence of formicid ant alarm pheromone in fast moving arthropods, like ground beetles, had evolved to chemically "hide" a beetle that was in conflict with ants. Will et al. further disclose the discharge of this mixture of chemicals could first deter the immediate threat by its irritating effect (page 477, paragraph 3).

Will et al. meet all the limitations of the claims and the claims are thereby anticipated.

Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by

Yoshiaki et al. (JP 10245302)

Yoshiaki et al. disclose a suspension-like composition for controlling very small insect pests, having no restriction in use and low possibility of development of chemical resistance. Yoshiaki et al. disclose the suspension-like composition for controlling small insect pests is obtained by mixing 5-40 percent weight of a sucrose fatty acid ester with 1-10 percent weight of carnauda wax and water or 5-40 percent weight of a sucrose fatty acid with 1-10 percent weight of an ammonium salt of a copolymer of methacrylic acid and a methacrylic acid ester and water (methacrylic acid and water) (Abstract).

Yoshiaki et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kameda et al. (US 3,920,619).

Kameda et al. disclose a process for casting a methacrylic acid polymer plate of improved flame retarding and antistatic properties by a bulk polymerization procedure, which comprises polymerizing in a mold a mixture of a) methacrylic acid in an amount of 20 to 100% by weight based on the total weight of the monomer components (A) and (C), b) water in an amount of 0.1 to 1 mole per mole of methacrylic acid and at least 1 part by weight based on 100 parts by weight of the monomer components (A) and (C), and c) at least one ethylenically unsaturated compound copolymerizable with methacrylic acid and capable of forming a homogeneous, transparent solution when

blended with the components (A) and (B) at a temperature of 25 °C, in an amount of 0 to 80% by weight based on the total weight of the monomer components (A) and (C) (col. 2, lines 34-53) (methacrylic acid and water, instant invention). Applicant uses open terminology, the term "comprising" which allows the composition to contain other components.

Applicant's intended use of the composition is a slug repellent, however, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is duly noted that applicant's composition is the same as the compositions of the prior art, therefore, able to perform the intended use.

Kameda et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 5, 7, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kishida et al. (US 4,546,145).

Kishida et al. disclose a polymer composition wherein an inorganic substance and an organic polymer are firmly consolidated (Abstract). Kishida et al. disclose in examples 10-14, col. 12, lines 62-68, polymerization was carried out in the same manner as in Example 9, except that methacrylic acid, crotonic acid and tiglic acid was used as the carboxylic acid-type monomer in place of the acrylic acid. Table 7 shows

the following mixtures: example 10 -methacrylic acid-2.6 parts mixed with 280 parts deionized water (methacrylic acid and water, instant invention); example 11-crotonic acid-2.6 parts mixed with 280 parts deionized water (crotonic acid and water, instant invention) and example 12-tiglic acid-3.0 parts mixed with 280 parts deionized water (tiglic acid and water, instant invention). Kishida et al. disclose that acrylic acid, methacrylic acid and crotonic acid showed high polymerization activities (col. 13, lines 19-22). Applicant's intended use of the composition is a slug repellent, however, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is duly noted that applicant's composition is the same as the compositions of the prior art, therefore, able to perform the intended use.

Kishida et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al. (US 3,719,629).

Martin et al. disclose water thinnable coating compositions (Abstract). Martin et al. disclose in example 5, the preparation of a polyaminoacrylate resin using an N-substituted aziridine (col. 11, lines 30-31). Martin et al. disclose a mixture of methacrylic acid, butyl acrylate, and azobis(isobutyronitrile) was polymerized in ethyl alcohol at 75°

C-80° C for 8 hours. Martin et al. further disclose the solution was neutralized by adding 132 grams of a 50 percent solution of acetic acid in water (acetic acid and water, instant invention) (col. 11, lines 41-43). Martin et al. disclose in example 11, col. 16, lines 31-59, a recipe that includes methacrylic 80 grams and 91% formic acid water 43 grams. Martin discloses the monomer/catalyst mixture was polymerized for 20 hours. Martin et al. further disclose after the solution was cooled the water and formic acid were stirred in (methacrylic acid, formic acid and water, instant invention). Applicant uses open terminology, the term "comprising" which allows the composition to contain other components.

Applicant's intended use of the composition is a slug repellent, however, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is duly noted that applicant's composition is the same as the compositions of the prior art, therefore, able to perform the intended use.

Martin et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes, Jr. et al. (US 4,645,602).

Barnes, Jr. et al. disclose a process for producing an integral single layer polymeric microporous filter membrane within which a reinforcing web is embedded (Abstract). Barnes, Jr. et al. disclose in the preparation of outer microporous membranes a quench bath composition of 30% methanol, 2% formic acid and 68% water was prepared (formic acid and water, instant invention) (col. 15, lines 47-50). Barnes et al. further disclose in claim 2, col. 23, lines 6-7, that the non-solvent system is a mixture of methanol and water or formic acid and water (formic acid and water, instant invention). Applicant's intended use of the composition is a slug repellent, however, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is duly noted that applicant's composition is the same as the compositions of the prior art, therefore, able to perform the intended use.

Barnes, Jr. et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 5, 8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Viout et al. (US 3,984,536).

Viout et al. disclose a cosmetic composition for use as a hair lacquer or hair-setting lotion contains an essentially homogeneous vinyl acetate/crotonic acid copolymer, the macromolecular chains of which contain essentially the same content of

each of vinyl acetate and crotonic acid along the entire length (Abstract). Viout et al. disclose the preparation of an essentially homogeneous vinyl acetate/crotonic acid copolymer. Viout et al. disclose that into a 1-liter flask provided with mechanical stirring, a nitrogen intake, a thermometer and a bromide funnel there are introduced 192.77 g of vinyl acetate, 7.77 g crotonic acid, 4.4 g of 88% benzoyl peroxide, and 0.6 g hydroxyl ethyl cellulose in solution in 200 ml of water saturated with 74.6 g of sodium chloride (col. 4, line s 29-34) (crotonic acid and water, instant invention). Applicant uses open terminology, the term "comprising" which allows the composition to contain other components.

Applicant's intended use of the composition is a slug repellent, however, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is duly noted that applicant's composition is the same as the compositions of the prior art, therefore, able to perform the intended use.

Viout et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 5, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Giletto et al. (US 2003/0070691).

Giletto et al. disclose antimicrobial solutions formed by ozonating a liquid containing organic precursor molecules (Abstract). Giletto et al. disclose in one embodiment, the active biocide if formed by ozonating at least one carboxylic acid (page 3, paragraph 46). Giletto et al. disclose carboxylic acids found to be useful in the present invention include acetic acid, formic acid, methacrylic acid, crotonic acid and mixtures thereof (page 4, paragraph 47) (formic acid, methacrylic acid, crotonic acid, instant invention). Giletto et al. disclose that in a preferred embodiment, active biocides are formed by ozonating a saturated carboxylic acid, preferably octanoic acid, where acetic acid may act as the solvent or diluent to comprise 10-95% by weight of the liquid to be ozonated (page 4, paragraph 54). Giletto et al. disclose in example 9, solutions containing varying amounts of acetic acid were saturated with ozone. Giletto et al. disclose that the solutions were prepared containing 50%, 75%, 90%, 95% and 99% by volume acetic acid in water (acetic acid and water, instant invention) (page 10, paragraph 107). Giletto et al. disclose in example 11, that non-ozonated controls were performed with deionized water, acetic acid (81% in water) and a commercial glutaraldehyde solution (acetic acid and water, instant invention) (page 11, paragraph 114). Applicant uses open terminology, the term "comprising" which allows the composition to contain other components.

Applicant's intended use of the composition is a slug repellent, however, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of

performing the intended use, then it meets the claim. It is duly noted that applicant's composition is the same as the compositions of the prior art, therefore, able to perform the intended use.

Giletto et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Slugs and Snails Publication (2003).

The Slugs and Snails Publication discloses that in the 1850s, French immigrant Antione Delmas brought snails to California so he would have an ample supply of escargot. The Slugs and Snails Publication discloses the offspring of those original snails destroy millions of dollars worth of California produce every year. The Slugs and Snails Publication further discloses to protect gardens easy solutions can be followed. The Slugs and Snails Publication discloses that equal parts of Heinz White Vinegar and water are mixed in a trigger-spray bottle, patrol garden at night, and spray the solution directly on slugs. The Slugs and Snails Publication further discloses the gastropods die almost immediately. It is known in the art that vinegar is acetic acid, therefore mixing vinegar and water is mixing acetic acid and water.

The Slugs and Snails Publication meets all of the limitations of the claims and the claims are thereby anticipated.

Claims 5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Takako et al. (JP 10259103).

Takako et al. disclose a gastropod expellent which is excellent in fast-acting property and high in safety and practical utility. Takako et al. disclose that the water-based gastropod expellent includes a monovalent alcohol of 1-4 carbon atoms in an amount of 30-59 wt % based on the whole weight and one or more than two kinds selected from acetic acid, salicylic acid and capsicum tincture as the synergist in an amount of more than 0.2 wt. % and less than 10 wt.% (Abstract) (acetic acid and water). Gastropods are commonly known as snails and slugs.

The Slugs and Snails Publication meets all of the limitations of the claims and the claims are thereby anticipated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. (1975) in view of the Slugs and Snails Publication (2003).

Applicant's Invention

Applicant claims a method of repelling or deterring slugs comprising the steps of obtaining naturally occurring secretions from a ground beetle; and applying the beetle secretions to an application surface. Applicant further claims the application surface is a pea plant.

***Determination of the scope of the content of the prior art
(MPEP 2141.01)***

The teachings of Scott et al. are incorporated herein by reference and are therefore applied in the instant rejection as discussed above.

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

Scott et al. do not teach the application surface is a portion of a plant or that the plant is a pea plant. It is for this reason the Slugs and Snails Publication is joined.

The teachings of the Slugs and Snails Publication are incorporated herein by reference and are therefore applied in the instant rejection as discussed above.

***Finding of *prima facie* obviousness
Rationale and Motivation (MPEP 2142-2143)***

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Scott et al. and the Slugs and Snails Publication and apply the secretions to a plant surface. Scott et al. teach that the secretions of anthiines (ground beetles) are characterized by the presence of formic acid as the major component, and acetic, tiglic, and angelic acids as additional minor components and that the presence of formic acid in all these beetles is interesting since it is a strong

common chemical irritant and cytotoxin that is capable of easily penetrating the mucous membranes on sensitive areas of potential vertebrate predators. One skilled in the art at the time the invention was made would have been motivated to use the natural secretions of a ground beetle and apply the secretions to a plant surface because the Slugs and Snails Publication teaches that vinegar (acetic acid) can be applied to plants and slugs to protect the plants from slug damage. Therefore, the skilled artisan would have a reasonable expectation of success in applying the natural secretions of a ground beetle, which includes acetic acid, to a plant surface to repel or kill slugs as the chemicals are known irritants and cytotoxins.

Each of the references is silent to the plant being a pea plant, however, the compositions of the prior art, particularly, the teachings of Scott et al., are the same as Applicant's composition, naturally obtained secretions of ground beetles that contain formic acid, acetic acid and tiglic acid. Thus, the skilled artisan would recognize that a composition is inseparable from its properties. Hence, all the properties associated with Applicant's compositions would also be possessed by the compositions of the prior art.

Given the state of the art as evidenced by the teachings of the cited references, and absent any evidence to the contrary, there would have been a reasonable expectation of success in combining the teachings of the cited references to produce a slug repellent from ground beetle secretions that are known irritants and cytotoxins.

Therefore, the claimed invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited reference.

None of the claims are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andriae M. Holt whose telephone number is (571)272-9328. The examiner can normally be reached on 7:00 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richter Johann can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andriae M. Holt
Patent Examiner
Art Unit 1616

/John Pak/
Primary Examiner, Art Unit 1616